

IN THE CLAIMS

The following is a complete listing of the pending claims along with status.

1. (ORIGINAL) A variable rate spring assembly comprising:
 - a housing defining a chamber;
 - a layer of compressible medium disposed with said chamber;
 - a layer of electro-reactive medium disposed with said chamber;
 - a coil assembly associated with said layer of electro-reactive medium;
 - a controller in communication with said coil assembly to control a magnetic field generated by said coil assembly; and
 - at least one attachment member movable relative to said housing.
2. (PREVIOUSLY PRESENTED) The assembly of claim 1, wherein said at least one attachment member moves relative to said housing proportionate to a compressibility of said layer of compressible medium and said layer of electro-reactive medium.
3. (PREVIOUSLY PRESENTED) The assembly of claim 1, wherein said layer of compressible medium and said layer of electro-reactive medium move within said chamber in response to energy input from said attachment member.
4. (ORIGINAL) The assembly of claim 1, wherein said housing includes a recess, and said layer of electro-reactive medium extends into said recess for limiting movement of said layer of electro-reactive medium relative to said housing.
5. (ORIGINAL) The assembly of claim 4, wherein said layer of electro-reactive medium locks into said recess preventing movement of said layer of electro-reactive medium relative to said housing.

6. (PREVIOUSLY PRESENTED) The assembly of claim 1, wherein said layer of compressible medium comprising at least two layers of compressible medium with one layer of compressible medium disposed above said layer of electro-reactive medium and another layer of compressible medium disposed below said electro-reactive medium.
7. (PREVIOUSLY PRESENTED) The assembly of claim 1, wherein said layer of compressible medium and said layer of electro-reactive medium are separated by a sealed plate movable relative to said housing.
8. (PREVIOUSLY PRESENTED) The assembly of claim 7, wherein said sealed plate defines a cross-sectional area for distributing a load placed on said variable rate spring assembly.
9. (PREVIOUSLY PRESENTED) The assembly of claim 7, including a plurality of said sealed plates, wherein each of said plurality of sealed plates are the same size.
10. (PREVIOUSLY PRESENTED) The assembly of claim 7, including a plurality of sealed plates, wherein at least one of said plurality of sealed plates is of a different size than another of said plurality of sealed plates.
11. (PREVIOUSLY PRESENTED) The assembly of claim 7, wherein said attachment member is attached to said sealed plate.
12. (PREVIOUSLY PRESENTED) The assembly of claim 1, wherein said controller varies electric current supplied to said coil assembly to vary compressibility characteristics of said layer of electro-reactive medium.
13. (ORIGINAL) The assembly of claim 1, comprising three layers of compressible medium and three layers of electro-reactive medium.

14. (CURRENTLY AMENDED) The assembly of ~~claim 12~~ claim 13, wherein said three layers of compressible medium and said three layers of electro-reactive medium are alternated such that no two adjacent layers are identical.
15. (ORIGINAL) The assembly of claim 1, comprising a stiffness variable in response to said magnetic field applied to said layer of electro-reactive medium.
16. (PREVIOUSLY PRESENTED) The assembly of claim 15, wherein said stiffness of said variable rate spring assembly varies proportionately with a magnitude of said magnetic field.
17. (PREVIOUSLY PRESENTED) The assembly of claim 1, further including multiple layers of said compressible medium, and at least two of said multiple layers of compressible medium comprise different compressible medium.
18. (PREVIOUSLY PRESENTED) The assembly of claim 1, further including multiple layers of said electro-reactive medium, and at least two of said multiple layers of electro-reactive medium comprise different electro-reactive medium.
19. (PREVIOUSLY PRESENTED) A method of absorbing energy comprising the steps of:
- a. separating adjacent layers of compressible medium and electro-reactive medium within a housing with movable plates;
 - b. attaching a first member movable relative to the housing to a first structure;
 - c. attaching a second member movable relative to the housing to a second structure movable relative to said first structure;
 - d. absorbing energy input from either of said first or second members in proportion to an overall compressibility of the adjacent layers of compressible medium and electro-reactive medium.

20. (ORIGINAL) The method of claim 19, comprising the step of creating a magnetic field associated with said electro-reactive medium, and varying said overall compressibility in proportion to a magnitude of said magnetic field.

21. (ORIGINAL) The method of claim 20, comprising varying said magnitude of said magnetic field in response to signals received by a controller indicative of changes in a predetermined condition.

22. (ORIGINAL) The method of claim 19, comprising the step of dispersing input energy over a surface of the compressible medium and the electro-reactive medium through said movable plates.

23. (CANCELLED)

24. (PREVIOUSLY PRESENTED) The assembly as recited in claim 1, including a plate movable within said chamber relative to said housing, said plate preventing intermixing of said compressible medium and said electro-reactive medium.

25. (PREVIOUSLY PRESENTED) The assembly as recited in claim 1, wherein said at least one attachment member comprises a first attachment member and a second attachment member movable relative to said housing and each other.

26. (PREVIOUSLY PRESENTED) A variable rate spring assembly comprising:
- a chamber defined within a housing;
 - a layer of dampening fluid;
 - a layer of electro-reactive fluid separated from said dampening fluid;
 - a plurality of plates movable within said chamber separating said layers;
 - a magnetic field generator adjacent said layer of electro-reactive fluid, said magnetic field generator generating a magnetic field for varying a dampening rate of said electro-reactive fluid;
 - and
 - an attachment member movable relative to said housing according to a combined dampening rate of said dampening fluid and said electro-reactive medium.